

Electrical Engineering

Study Year 1, Academic Year 2012/13 (Mandatory Courses)

Course Code	Credits	Cycle	S.Ex. stud.	Language	Course Name	Footnote	Links	12/13	12/13	12/13	12/13
								sp1	sp2	sp3	sp4
FMAA05	15	G1	-	S	Calculus in One Variable		KS KE U W T	1	2		
ESS010	15	G1	-	S	Electronics		KS KE U W T	1	2	3	
EDA017	9	G1	-	S	Programming, First Course		KS KE U W T		2	3	
FMA420	6	G1	-	S	Linear Algebra		KS KE U W T			3	
FMA430	6	G1	-	S	Calculus in Several Variables		KS KE U W T				4
EFAA01	9	G1	-	S	Physics - Mechanics and Waves		KS KE U W T				4

Study Year 2, Academic Year 2013/14 (Mandatory Courses)

Course Code	Credits	Cycle	S.Ex. stud.	Language	Course Name	Footnote	Links	13/14	13/14	13/14	13/14
								sp1	sp2	sp3	sp4
FAFA35	6	G1	-	S	Physics - Thermodynamics and Atomic Physics		KS KE U W T	1			
EIT020	9	G2	-	S	Design of Digital Circuits – A Systems Approach		KS KE U W T	1	2		
EDAA01	7.5	G1	-	S	Programming - Second Course		KS KE U W T	1	2		
MIO012	6	G1	-	S	Managerial Economics, Basic Course	X	KS KE U W T		2		
ESSF01	8	G2	-	S	Analogue Circuits		KS KE U W T		2	3	4
EIT070	6	G2	-	S	Computer Organization		KS KE U W T			3	
EMAF01	7	G2	-	S	Mathematics - Analytic Functions		KS KE U W T			3	

Course Code	Credits	Cycle	S.Ex. stud.	Language	Course Name	Footnote	Links					
							13/14 sp1	13/14 sp2	13/14 sp3	13/14 sp4		
EMAF05	7	G2	-	S	Mathematics - Systems and Transforms		KS	KE	U	W	T	4
ESS030	4.5	G2	-	S	Physics of Devices		KS	KE	U	W	T	4

[MIO012](#) Managerial Economics, Basic Course: *Only one of the courses [MIO012](#) and [MIOA01](#) may be included in a degree.*

Study Year 3, Academic Year 2014/15 (Mandatory Courses)

Course Code	Credits	Cycle	S.Ex. stud.	Language	Course Name	Footnote	Links	14/15	14/15	14/15	14/15
								sp1	sp2	sp3	sp4
ERT010	7.5	G2	-	S	Automatic Control, Basic Course		KS KE U W T	1			
ETS052	4.5	G2	-	S	Computer Communication		KS KE U W T	1			
ESS050	9	G2	-	E	Electromagnetic Fields		KS KE U W T	1	2		
ESS040	6	G2	X	S	Systems and Signals		KS KE U W T		2		
FMS012	9	G2	-	S	Mathematical Statistics, Basic Course		KS KE U W T		2	3	
ESSE15	5	G2	-	S	Electrical Engineering		KS KE U W T			3	
ESSE10	5	G2	-	S	Electrical Measurements		KS KE U W T			3	

Course Code	Credits	Cycle	S.Ex. stud.	Language	Course Name	Footnote	Links						
							14/15 sp1	14/15 sp2	14/15 sp3	14/15 sp4			
ESSF05	8	G2	-	S	Project in Electronics and Sustainable Development		KS	KE	U	W	T	3	4
EMN050	6	G2	X	E1	Numerical Analysis		KS	KE	U	W	T		4

Study Year 3, Academic Year 2014/15 (Elective Mandatory Courses)

Course Code	Credits	Cycle	S.Ex. stud.	Language	Course Name	Footnote	Links						
							14/15 sp1	14/15 sp2	14/15 sp3	14/15 sp4			
ETI265	7.5	G1	X	S	Signal Processing in Multimedia	X	KS	KE	U	W	T		4

[ETI265](#) Signal Processing in Multimedia: *Students admitted to the China specialisation takes this course in the autumn of year three, in China.*

Specialisation hn - High-frequency and Nanoelectronics

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links			
										sp1	sp2	sp3	sp4
EAF10	9	G1	V	2 - 13/14	1	-	S	Physics - Quantum Phenomena and Nanotechnology	KS KE U W T		2		

Specialisation bg - Images and Computer Graphics

Course Code	Credits	Cycle	Mand./ Elect.		Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	sp1	sp2	sp3	sp4
EDA221	7.5	G2	V		4 - 15/16	4	X	E	Computer Graphics		KS KE U W T	1			
EMAN20	7.5	A	V		4 - 15/16	4	X	E1	Image Analysis		KS KE U W T	1			
EITN55	7.5	A	V		4 - 15/16	4	X	E1	Signal Separation - Independent Components		KS KE U W T	1			
FMSF10	7.5	G2	V		4 - 15/16	4	X	E1	Stationary Stochastic Processes	X	KS KE U W T	1			
FMA120	6	A	V		4 - 15/16	4	X	E1	Matrix Theory		KS KE U W T	1	2		
EDAN35	7.5	A	V		4 - 15/16	4	X	E	High Performance Computer Graphics		KS KE U W T		2		
FAFF20	7.5	G2	V		4 - 15/16	4	X	E	Multi-spectral Imaging		KS KE U W T		2		

Course Code	Credits	Cycle	Mand./ Elect.		Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	sp1 sp2 sp3 sp4				
EITN60	7.5	A	V		4 - 15/16	4	X	E	Optimum and Adaptive Signal Processing		KS KE U W T		2			
EMSN20	7.5	A	V		4 - 15/16	4	X	E1	Spatial Statistics with Image Analysis		KS KE U W T		2			
EMA270	6	A	V		4 - 15/16	4	X	E1	Computer Vision		KS KE U W T			3		
ETIF10	7.5	G2	V		4 - 15/16	4	X	E1	Signal Processing - Design and Implementation		KS KE U W T				4	
EMN100	6	A	V		5 - 16/17	4	X	E1	Numerical Methods in CAGD	X	KS KE U W T	1				

[FMSE10](#) Stationary Stochastic Processes: *Only one of the courses [EMS045](#) and [FMSE10](#) may be included in a degree.*

[EMN100](#) Numerical Methods in CAGD: *Please note that the contents of the course are partly (3 credits) the same as in [FMA135](#).*

Specialisation em - Energy and Environment

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links				
											sp1	sp2	sp3	sp4
EIEN15	7.5	A	V	4 - 15/16	4	X	E1	Electric Power Systems		KS KE U W T	1			
MIE100	7.5	A	V	4 - 15/16	4	X	E1	Hybrid Vehicle Drive Systems		KS KE U W T	1			
FMI050	7.5	A	V	4 - 15/16	4	-	S	Energy Systems Analysis: Energy, Environment and Natural Resources		KS KE U W T	1	2		
FMI055	7.5	A	V	4 - 15/16	4	-	S	Environmental Systems Studies: Life Cycle Analysis		KS KE U W T	1	2		
EIEN10	7.5	A	V	4 - 15/16	4	X	E1	Wind Power Systems		KS KE U W T		2		
AEB020	7.5	G2	V	4 - 15/16	4	X	E	Photovoltaic Systems, Basic Course		KS KE U W T			3	
FMI040	7.5	A	V	4 - 15/16	4	-	S	Energy Systems Analysis: Renewable Sources of Energy		KS KE U W T			3	4

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links				
											sp1	sp2	sp3	sp4
EIEN25	15	A	V	4 - 15/16	4	X	E1	Power Electronics - Devices, Converters, Control and Applications	X	KS KE U W T			3	4
MVKN15	7.5	A	V	4 - 15/16	4	-	S	Energy Supply Systems		KS KE U W T				4
MVKN30	7.5	A	V	5 - 16/17	4	-	S	Advanced Efficient Energy Systems		KS KE U W T	1	2		
EIE061	7.5	A	V	5 - 16/17	4	X	E1	Project in Industrial Electrical Engineering and Automation		KS KE U W T	1	2		
EIE061													3	4
EIEN20	7.5	A	V	5 - 16/17	4	X	E1	Design of Electrical Machines	X	KS KE U W T	Course on hold			

[EIEN25](#) Power Electronics - Devices, Converters, Control and Applications: *may not be included in a degree together with either [EIE015](#), [EIE023](#) or [EIE042](#)*

[EIEN20](#) Design of Electrical Machines: *The course is offered every other academic year and will next be offered in 2017/18.*

Specialisation fh - Photonics and High-Frequency Electronics

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links			
										sp1	sp2	sp3	sp4
ETIF05	7.5	G2	V	4 - 15/16	4	X	E	Basic Wireless Communication Technique	KS KE U W T	1			
ETIN20	7.5	A	V	4 - 15/16	4	X	E	Digital IC-design	KS KE U W T	1			
FAFF01	7.5	G2	V	4 - 15/16	4	X	E	Optics and Optical Design	KS KE U W T	1			
FFF110	7.5	G2	V	4 - 15/16	4	X	E	Processing and Device Technology	KS KE U W T	1			
ETIN25	7.5	A	V	4 - 15/16	4	X	E	Analogue IC-design	KS KE U W T		2		
ETEN10	7.5	A	V	4 - 15/16	4	X	E	Antenna Technology	KS KE U W T		2		
FAFN01	7.5	A	V	4 - 15/16	4	X	E	Lasers	KS KE U W T		2		

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links				
											sp1	sp2	sp3	sp4
ETIN50	7.5	A	V	4 - 15/16	4	X	E	RF Amplifier Design		KS KE U W T		2		
FFF115	7.5	A	V	4 - 15/16	4	X	E1	High Speed Devices	X	KS KE U W T			3	
FFEN25	7.5	A	V	4 - 15/16	4	X	E	Optoelectronics and Optical Communication		KS KE U W T			3	
FAFN10	7.5	A	V	4 - 15/16	4	X	E	Advanced Optics and Lasers		KS KE U W T				4
ETEN01	7.5	A	V	4 - 15/16	4	X	E1	Microwave Theory		KS KE U W T				4
FFF160	7.5	A	V	4 - 15/16	4	X	E1	Nanoelectronics		KS KE U W T				4
ETIN30	7.5	A	V	4 - 15/16	4	X	E	Integrated Radio Electronics	X	KS KE U W T	Course on hold			

[FFF115](#) High Speed Devices: *The course is offered every other academic year and will be given in 2015/16, 2017/18.*

[ETIN30](#) Integrated Radio Electronics: *The course is offered every other academic year and will next be offered in 2016/17.*

Specialisation is - Integrated Systems

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links					
			V								sp1	sp2	sp3	sp4	
ETIN20	7.5	A	V	4 - 15/16	4	X	E	Digital IC-design		KS KE U W T	1				
EITE35	7.5	G2	V	4 - 15/16	4	X	E	Introduction to Structured VLSI Design		KS KE U W T	1				
FFF110	7.5	G2	V	4 - 15/16	4	X	E	Processing and Device Technology		KS KE U W T	1				
FFF021	7.5	A	V	4 - 15/16	4	X	E1	Semiconductor Physics		KS KE U W T	1				
ETIN40	7.5	A	V	4 - 15/16	4	X	E	IC-project 2		KS KE U W T	1	2			
ETIN25	7.5	A	V	4 - 15/16	4	X	E	Analogue IC-design		KS KE U W T		2			
EEMN05	7.5	A	V	4 - 15/16	4	X	E1	EMC, Noise and Noise Reduction		KS KE U W T		2			

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	sp1 sp2 sp3 sp4				
ETIN55	7.5	A	V	4 - 15/16	4	X	E	Integrated A/D and D/A Converters		KS KE U W T		2			
EITF40	7.5	G2	V	4 - 15/16	4	X	E1	Digital and Analogue Projects		KS KE U W T			3		
ETIN45	7.5	A	V	4 - 15/16	4	X	E	DSP-design		KS KE U W T			3		
ETIN35	7.5	A	V	4 - 15/16	4	X	E	IC-project 1		KS KE U W T			3	4	
EDAN15	7.5	A	V	4 - 15/16	4	X	E	Design of Embedded Systems		KS KE U W T				4	
ETIN30	7.5	A	V	4 - 15/16	4	X	E	Integrated Radio Electronics	X	KS KE U W T		Course on hold			
EDA385	7.5	A	V	5 - 16/17	4	X	E	Design of Embedded Systems, Advanced Course	X	KS KE U W T		Course on hold			

[ETIN30](#) Integrated Radio Electronics: *The course is offered every other academic year and will next be offered in 2016/17.*

[EDA385](#) Design of Embedded Systems, Advanced Course: *The course is offered every other academic year and will next be given in 2017/18.*

Specialisation ks - Communication Systems

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links				
											sp1	sp2	sp3	sp4
ETT051	7.5	G2	V	4 - 15/16	4	X	E	Digital Communications		KS KE U W T	1			
ETT15	7.5	A	V	4 - 15/16	4	X	E	Modern Wireless Systems - LTE and Beyond		KS KE U W T	1			
ETSF05	9	G2	V	4 - 15/16	4	-	E1	Internet Protocols		KS KE U W T	1	2		
EDIN01	7.5	A	V	4 - 15/16	4	X	E1	Cryptography		KS KE U W T		2		
ETT101	7.5	A	V	4 - 15/16	4	X	E	Digital Communications, Advanced Course		KS KE U W T		2		
EDI042	7.5	A	V	4 - 15/16	4	X	E	Error Control Coding		KS KE U W T		2		
ETSN01	7.5	A	V	4 - 15/16	4	X	E	Advanced Telecommunication		KS KE U W T			3	

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links				
											sp1	sp2	sp3	sp4
ETIN10	7.5	A	V	4 - 15/16	4	X	E	Channel Modelling for Wireless Communication		KS KE U W T			3	
EITN30	7.5	A	V	4 - 15/16	4	-	S	Internet Inside		KS KE U W T			3	
EITN45	7.5	A	V	4 - 15/16	4	X	E	Information Theory		KS KE U T				4
ETS075	4.5	G2	V	4 - 15/16	4	X	S	Queuing System		KS KE U W T				4
ETIN15	7.5	A	V	4 - 15/16	4	X	E	Radio Systems		KS KE U W T				4
ETS061	7.5	A	V	4 - 15/16	4	X	E1	Simulation		KS KE U W T				4
EITN21	7.5	A	V	5 - 16/17	5	X	E	Project in Wireless Communications		KS KE U W T	1	2		

Specialisation mt - Biomedical Engineering

Course Code	Credits	Cycle	Mand./ Elect.		Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links					
												sp1	sp2	sp3	sp4	
BMEN05	7.5	A	V		4 - 15/16	4	X	E	Biomechanics	X	KS KE U W T	1				
EMAN20	7.5	A	V		4 - 15/16	4	X	E1	Image Analysis		KS KE U W T	1				
EEMN20	7.5	A	V		4 - 15/16	4	X	E	Introduction to Lab-on-a-chip Systems	X	KS KE U W T	1				
EITN55	7.5	A	V		4 - 15/16	4	X	E1	Signal Separation - Independent Components		KS KE U W T	1				
EEM031	7.5	G2	V		4 - 15/16	4	-	S	Transducer Technology	X	KS KE U W T	1				
TNX097	7.5	G2	V		4 - 15/16	4	-	S	Rehabilitation Engineering		KS KE U W T	1	2			
EEMF05	7.5	G2	V		4 - 15/16	4	-	S	Biomedical Measurements	X	KS KE U W T			2		

Course Code	Credits	Cycle	Mand./ Elect.		Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links				
												sp1	sp2	sp3	sp4
EEMN05	7.5	A	V		4 - 15/16	4	X	E1	EMC, Noise and Noise Reduction		KS KE U W T		2		
EMAN30	7.5	A	V		4 - 15/16	4	X	E1	Medical Image Analysis		KS KE U W T		2		
EEMN15	7.5	A	V		4 - 15/16	4	X	S	Ultrasound Physics and Technology	X	KS KE U W T			3	
EMAN01	7.5	A	V		4 - 15/16	4	X	E1	Biomathematics	X	KS KE U W T			3	4
BMEN01	7.5	A	V		4 - 15/16	4	X	E1	Biomedical Signal Processing		KS KE U W T				4
FAF150	7.5	A	V		4 - 15/16	4	X	E	Medical Optics	X	KS KE U W T				4

[BMEN05](#) Biomechanics: *Replaces the course [FHLLF05](#).*

[EEMN20](#) Introduction to Lab-on-a-chip Systems: *Replaces [EEM055](#) Microfluidics*

[EEM031](#) Transducer Technology: *Re-examination set by agreement.*

[EEMF05](#) Biomedical Measurements: *Reexam date to be set by agreement.*

[EEMN15](#) Ultrasound Physics and Technology: *Re-examination set by agreement.*

[EMAN01](#) Biomathematics: *The course is offered every other academic year and will be given in 2015/16, 2017/18.*

[FAF150](#) Medical Optics: *Examination for higher grade after agreement with the course coordinator.*

Specialisation pla - Production, Logistics and Business

Course Code	Credits	Cycle	Mand./ Elect.		Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links			
											sp1	sp2	sp3	sp4
MTTF01	5	G2	V		4 - 15/16	4	-	S	Logistics	KS KE U W T	1			
MION25	7.5	A	V		4 - 15/16	4	-	S	Technology Strategy	KS KE U W T	1			
MIOF10	7.5	G2	V		4 - 15/16	4	X	E	Production and Inventory Control	KS KE U W T		2		
MIOF01	9	G2	V		4 - 15/16	4	-	S	Marketing and Globalization	KS KE U W T		2	3	
MION20	7.5	A	V		4 - 15/16	4	-	S	Applied Business Analysis	KS KE U W T			3	
MTT045	7.5	A	V		4 - 15/16	4	X	E	International Physical Distribution	KS KE U W T			3	
MION01	7.5	A	V		4 - 15/16	4	X	E	Management of Production and Inventory Systems	KS KE U W T			3	

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	sp1 sp2 sp3 sp4			
MIO040	6	G2	V	4 - 15/16	4	-	S	Managerial Economics, Advanced Course		KS KE U W T			3	
MIO040														4
MION45	7.5	A	V	4 - 15/16	4	X	E	Operations Strategy		KS KE U W T				4
MTT240	7.5	A	V	4 - 15/16	4	X	E	Supply Chain Management		KS KE U W T				4
MION30	7.5	A	V	5 - 16/17	4	-	S	Industrial Management		KS KE U W T	1			
MTTN20	7.5	A	V	5 - 16/17	5	X	E	Supply Chain Information Systems		KS KE U W T	1			
MION05	7.5	A	V	5 - 16/17	4	-	S	Business Marketing		KS KE U W T		2		

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links							
										sp1	sp2	sp3	sp4				
MTT115	7.5	A	V	5 - 16/17	4	X	E	Industrial Purchasing		KS	KE	U	W	T	2		

Specialisation pv - Software

Course Code	Credits	Cycle	Mand./ Elect.		Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links				
											sp1	sp2	sp3	sp4	
EMNN25	7.5	A	V		4 - 15/16	4	X	E1	Advanced Course in Numerical Algorithms with Python/SciPy	KS KE U W T	1				
EDA061	4.5	G2	V		4 - 15/16	4	-	S	Object-oriented Modelling and Design	X	KS KE U W T	1			
ETSN05	7.5	A	V		4 - 15/16	4	-	S	Software Development for Large Systems		KS KE U W T	1			
EDA040	6	G2	V		4 - 15/16	4	X	E1	Concurrent Programming		KS KE U W T	1	2		
EDAN10	7.5	A	V		4 - 15/16	4	X	E	Configuration Management		KS KE U W T		2		
ETS170	7.5	A	V		4 - 15/16	4	X	S	Requirements Engineering		KS KE U W T		2		
EDA260	6	G2	V		4 - 15/16	4	-	S	Software Development in Teams – Project		KS KE U W T		2	3	

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links				
											sp1	sp2	sp3	sp4
ETS200	7.5	A	V	4 - 15/16	4	X	E	Software Testing		KS KE U W T			3	
EDA031	7.5	G2	V	4 - 15/16	4	X	S	C++ Programming		KS KE U W T			3	4
EDA216	7.5	G2	V	4 - 15/16	4	X	S	Database Technology		KS KE U W T			3	4
EDAF35	7.5	G2	V	4 - 15/16	4	X	S	Operating Systems		KS KE U W T				4
EDAN55	7.5	A	V	4 - 15/16	4	X	E	Advanced Algorithms	X	KS KE U W T	Course on hold			

[EDA061](#) Object-oriented Modelling and Design: *Only one of the courses [EDA061](#) and [EDAF10](#) may be included in a degree.*

[EDAN55](#) Advanced Algorithms: *The course is offered every other academic year and will next be offered in 2016/17.*

Specialisation ra - Control and Automation

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links				
											sp1	sp2	sp3	sp4
EIEN15	7.5	A	V	4 - 15/16	4	X	E1	Electric Power Systems		KS KE U W T	1			
FRTN10	7.5	A	V	4 - 15/16	4	X	E1	Multivariable Control		KS KE U W T	1			
EIEF01	10	G2	V	4 - 15/16	4	X	E1	Applied Mechatronics		KS KE U W T	1	2		
FMA120	6	A	V	4 - 15/16	4	X	E1	Matrix Theory		KS KE U W T	1	2		
FRT041	7.5	A	V	4 - 15/16	4	X	E1	System Identification		KS KE U W T	1	2		
FRTN05	7.5	A	V	4 - 15/16	4	X	E1	Non-Linear Control and Servo Systems		KS KE U W T		2		
FRT090	7.5	A	V	4 - 15/16	4	X	E1	Project in Automatic Control		KS KE U W T		2		

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links			
			V							sp1	sp2	sp3	sp4
MIE080	7.5	G2	V	4 - 15/16	4	X	E1	Automation	KS KE U W T			3	
EIEN01	10	A	V	4 - 15/16	4	X	E1	Mechatronics, Industrial Product Design	KS KE U W T			3	4
FRTN15	7.5	A	V	4 - 15/16	4	X	E1	Predictive Control	KS KE U W T			3	4
FRTN01	10	A	V	4 - 15/16	4	X	E1	Real-Time Systems	KS KE U W T			3	4
MIE090	7.5	A	V	4 - 15/16	4	X	E1	Automation for Complex Systems	KS KE U W T				4
FRTN30	7.5	A	V	4 - 15/16	4	X	E	Network Dynamics	KS KE U T				4

Specialisation ss - Signals and Sensors

Course Code	Credits	Cycle	Mand./ Elect.		Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links				
												sp1	sp2	sp3	sp4
EITN55	7.5	A	V		4 - 15/16	4	X	E1	Signal Separation - Independent Components		KS KE U W T	1			
FMSE10	7.5	G2	V		4 - 15/16	4	X	E1	Stationary Stochastic Processes	X	KS KE U W T	1			
EEM031	7.5	G2	V		4 - 15/16	4	-	S	Transducer Technology	X	KS KE U W T	1			
FRT041	7.5	A	V		4 - 15/16	4	X	E1	System Identification		KS KE U W T	1	2		
EEMN10	7.5	A	V		4 - 15/16	4	X	S	Computerised Measurement Systems	X	KS KE U W T		2		
EEMN05	7.5	A	V		4 - 15/16	4	X	E1	EMC, Noise and Noise Reduction		KS KE U W T		2		
FMS051	7.5	A	V		4 - 15/16	4	X	E1	Mathematical Statistics, Time Series Analysis		KS KE U W T		2		

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links				
											sp1	sp2	sp3	sp4
EITN60	7.5	A	V	4 - 15/16	4	X	E	Optimum and Adaptive Signal Processing		KS KE U W T		2		
ETIN80	7.5	A	V	4 - 15/16	4	X	E1	Algorithms in Signal Processors – Project Course		KS KE U W T			3	
EMSN35	7.5	A	V	4 - 15/16	4	X	E1	Stationary and Non-stationary Spectral Analysis	X	KS KE U W T			3	
EEMN15	7.5	A	V	4 - 15/16	4	X	S	Ultrasound Physics and Technology	X	KS KE U W T			3	
FRTN01	10	A	V	4 - 15/16	4	X	E1	Real-Time Systems		KS KE U W T			3	4
EEMN01	7.5	A	V	4 - 15/16	4	X	E1	Micro Sensors	X	KS KE U W T				4
ETIF10	7.5	G2	V	4 - 15/16	4	X	E1	Signal Processing - Design and Implementation		KS KE U W T				4

[FMSE10](#) Stationary Stochastic Processes: *Only one of the courses [FMS045](#) and [FMSE10](#) may be included in a degree.*

[EEM031](#) Transducer Technology: *Re-examination set by agreement.*

[EEMN10](#) Computerised Measurement Systems: *Re-examination set by agreement.*

[FMSN35](#) Stationary and Non-stationary Spectral Analysis: *The course is offered every other academic year and will be given in 2015/16, 2017/18.*

[EEMN15](#) Ultrasound Physics and Technology: *Re-examination set by agreement.*

[EEMN01](#) Micro Sensors: *Re-examination set by agreement.*

Elective Courses - E

Course Code	Credits	Cycle	Language			S.Ex. stud.	Course Name	Footnote	Links	sp1 sp2 sp3 sp4			
			Year	From year									
GEMA50	4.5	G1	2 - 13/14	1	-	S	History of Technology	KS KE U W T	1	2			
EXTA10	3	G1	2 - 13/14	2	-	S	Introduction to Chinese Society, Culture and Language	X KS KE U T	1	2			
FAFA10	9	G1	2 - 13/14	1	-	S	Physics - Quantum Phenomena and Nanotechnology	KS KE U W T		2			
EMF061	4.5	G2	2 - 13/14	2	-	S	Theory of Relativity	KS KE U W T			3		
EXTA35	15	G1	2 - 13/14	2	-	S	Introductory Course in Chinese for Engineers	X KS KE U T			3	4	
GEMA45	3	G1	2 - 13/14	1	-	S	Teaching and Learning	KS KE U W T			3	4	
EMA091	6	G1	2 - 13/14	2	-	S	Discrete Mathematics	KS KE U W T				4	

Course Code	Credits	Cycle	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links				
										sp1	sp2	sp3	sp4
EXTF60	15	G2	3 - 14/15	3	-	E	Introductory Course in Chinese for Engineers, Part 2	X	KS KE U W T	1	2		
GEMA65	7.5	G1	3 - 14/15	1	-	S	Chinese for Engineers	X	KS KE U T			3	4
MIO022	6	G2	3 - 14/15	3	-	S	Management Organization		KS KE U W T				4
EITN50	7.5	A	4 - 15/16	4	X	E	Advanced Computer Security	X	KS KE U W T	1			
MMKF15	7.5	G2	4 - 15/16	4	X	E1	Applied Robotics		KS KE U W T	1			
EDAA25	3	G1	4 - 15/16	4	X	S	C Programming		KS KE U W T	1			
EDAN65	7.5	A	4 - 15/16	4	X	E1	Compilers	X	KS KE U W T	1			

Course Code	Credits	Cycle		From year	S.Ex. stud.	Language	Course Name	Footnote	Links	sp1	sp2	sp3	sp4
		Year											
ETEN05	7.5	A	4 - 15/16	4	X	E	Electromagnetic Wave Propagation		KS KE U W T	1			
EMSE15	7.5	G2	4 - 15/16	4	X	E1	Markov Processes		KS KE U W T	1			
EITN10	7.5	A	4 - 15/16	4	X	E	Multiple Antenna Systems		KS KE U W T	1			
EDA230	7.5	A	4 - 15/16	4	X	S	Optimising Compilers	X	KS KE U W T	1			
EMFF15	7.5	G2	4 - 15/16	4	-	E1	Quantum Mechanics and Mathematical Methods		KS KE U W T	1			
AEB010	7.5	G2	4 - 15/16	4	X	E	Solar Heating Technology, Basic Course		KS KE U W T	1			
GEMA20	7.5	G1	4 - 15/16	1	-	E	English for Engineers	X	KS KE U W T	1	2		

Course Code	Credits	Cycle	Language				Course Name	Footnote	Links	sp1 sp2 sp3 sp4			
			Year	From year	S.Ex. stud.					sp1	sp2	sp3	sp4
EMIF20	7.5	G2	4 - 15/16	4	X	E	Environmental Issues	KS KE U W T	1	2			
GEMA25	7.5	G1	4 - 15/16	1	-	S	German for Engineers	X KS KE U W T	1	2			
GEMA60	7.5	G1	4 - 15/16	1	-	S	Law for Engineers, Introductory Course in Business Law	X KS KE U W T	1	2			
GEMA70	15	G1	4 - 15/16	1	-	S	Japanese for Engineers	X KS KE U W T	1	2	3		
MVKN05	7.5	A	4 - 15/16	2	-	S	Project - Formula Student	KS KE U W T	1	2	3	4	
TEK210	4.5	G1	4 - 15/16	4	-	S	Cognition	KS KE U W T		2			
EITE20	7.5	G2	4 - 15/16	4	X	E1	Computer Architecture	KS KE U W T		2			

Course Code	Credits	Cycle	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links				
										sp1	sp2	sp3	sp4
EMAA25	7.5	G1	4 - 15/16	4	X	E	Discrete Mathematics		KS KE U W T		2		
EKFN05	7.5	A	4 - 15/16	4	X	E1	Experimental Tools for Subatomic Physics		KS KE U W T		2		
EMA051	6	A	4 - 15/16	4	X	E1	Optimization		KS KE U W T		2		
FAFA10	9	G1	4 - 15/16	4	-	S	Physics - Quantum Phenomena and Nanotechnology		KS KE U W T		2		
EMAN40	3	A	4 - 15/16	4	X	E1	Project in Applied Mathematics		KS KE U W T		2		
EDAN70	7.5	A	4 - 15/16	4	X	E1	Project in Computer Science		KS KE U W T		2		
EMAN35	3	A	4 - 15/16	4	-	E1	Project in Mathematics		KS KE U W T		2		

Course Code	Credits	Cycle	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links								
									sp1	sp2	sp3	sp4					
FFF042	7.5	A	4 - 15/16	4	X	E	The Physics of Low-dimensional Structures and Quantum Devices	X	KS	KE	U	W	T	2			
EDA132	7.5	G2	4 - 15/16	4	X	E	Applied Artificial Intelligence		KS	KE	U	W	T			3	
EIT060	7.5	G1	4 - 15/16	4	X	S	Computer Security		KS	KE	U	W	T			3	
MVKN20	7.5	A	4 - 15/16	4	-	S	Energy Utilization		KS	KE	U	W	T			3	
FHL055	7.5	G1	4 - 15/16	4	-	S	Engineering Mechanics		KS	KE	U	W	T			3	
FMA240	6	G2	4 - 15/16	4	X	E1	Linear and Combinatorial Optimization		KS	KE	U	W	T			3	
ETIA10	7.5	G1	4 - 15/16	4	X	E	Patent and Intellectual Property Rights		KS	KE	U	W	T			3	

Course Code	Credits	Cycle	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links						
									sp1	sp2	sp3	sp4			
TEK070	7.5	G2	4 - 15/16	4	-	S	Safety, Health and Environmental Law		KS	KE	U	W	T	3	
EMF061	4.5	G2	4 - 15/16	4	-	S	Theory of Relativity		KS	KE	U	W	T	3	
MAMF15	6	G2	4 - 15/16	4	-	S	Work Organization and Management		KS	KE	U	W	T	3	
EMA021	7.5	A	4 - 15/16	4	-	S	Applied Mathematics		KS	KE	U	W	T	3	4
TEK290	7.5	G2	4 - 15/16	4	X	E1	Biology, Introductory Course		KS	KE	U	W	T	3	4
EMAN25	7.5	A	4 - 15/16	4	X	E1	Calculus of Variations		KS	KE	U	W	T	3	4
GEMA20	7.5	G1	4 - 15/16	1	-	E	English for Engineers	X	KS	KE	U	W	T	3	4

Course Code	Credits	Cycle	Language			S.Ex. stud.	Course Name	Footnote	Links						
			Year	From year					sp1	sp2	sp3	sp4			
GEMA01	7.5	G1	4 - 15/16	1	-	S	French for Engineers: Language, Culture and Society, First Course	X	KS	KE	U	W	T	3	4
EITA05	4.5	G1	4 - 15/16	1	-	S	History of Technology		KS	KE	U	W	T	3	4
GEMA60	7.5	G1	4 - 15/16	1	-	S	Law for Engineers, Introductory Course in Business Law	X	KS	KE	U	W	T	3	4
GEMA55	6	G1	4 - 15/16	1	-	S	Medicine for Engineers	X	KS	KE	U	W	T	3	4
FKF100	7.5	A	4 - 15/16	4	X	E1	Methods for Environmental Monitoring		KS	KE	U	W	T	3	4
MAMF21	7.5	G2	4 - 15/16	4	-	S	Working Environment, Occupational Health and Safety		KS	KE	U	W	T	3	4
EDAF05	5	G2	4 - 15/16	4	X	E1	Algorithms, Data Structures and Complexity		KS	KE	U	W	T		4

Course Code	Credits	Cycle	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links					
									sp1	sp2	sp3	sp4		
EMS072	7.5	G2	4 - 15/16	4	X	E1	Design of Experiments		KS	KE	U	W	T	4
EMAA25	7.5	G1	4 - 15/16	4	X	E	Discrete Mathematics		KS	KE	U	W	T	4
FHL064	7.5	G2	4 - 15/16	4	X	S	Finite Element Method		KS	KE	U	W	T	4
KII010	7.5	G2	4 - 15/16	4	X	E1	Industrial Environmental Management		KS	KE	U	W	T	4
EMAN40	3	A	4 - 15/16	4	X	E1	Project in Applied Mathematics		KS	KE	U	W	T	4
EDAN70	7.5	A	4 - 15/16	4	X	E1	Project in Computer Science		KS	KE	U	W	T	4
MIOF05	2	G2	4 - 15/16	4	-	S	Project in Managerial Economics, Advanced Course		KS	KE	U	W	T	4

Course Code	Credits	Cycle	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	sp1 sp2 sp3 sp4			
										sp1	sp2	sp3	sp4
EMAN35	3	A	4 - 15/16	4	-	E1	Project in Mathematics		KS KE U W T				4
MIE041	9	G2	4 - 15/16	4	X	E1	Measurement Systems for Control	X	KS KE U W T	Course on hold			
MMKN30	7.5	A	4 - 15/16	4	X	E1	Service Robotics	X	KS KE U W T	Course on hold			
EITN35	7.5	A	5 - 16/17	4	X	E1	Advanced Course in Electrical and Information Technology	X	KS KE U W T	1			
EITF05	4	G2	5 - 16/17	4	-	S	Web Security		KS KE U W T	1			
EITN35	7.5	A	5 - 16/17	4	X	E1	Advanced Course in Electrical and Information Technology	X	KS KE U W T		2		
EITN41	7.5	A	5 - 16/17	4	-	S	Advanced Web Security		KS KE U W T		2		
TEK171	7.5	A	5 - 16/17	4	-	S	Quantitative Human Physiology		KS KE U W T		2		
EITN35	7.5	A	5 - 16/17	4	X	E1	Advanced Course in Electrical and Information Technology	X	KS KE U W T			3	

Course Code	Credits	Cycle	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links				
									sp1	sp2	sp3	sp4	
EITN35								X					4

[EXTA10](#) Introduction to Chinese Society, Culture and Language: *Compulsory for students admitted to the China specialisation.*

[EXTA35](#) Introductory Course in Chinese for Engineers: *Compulsory for students admitted to the China specialisation.*

[EXTF60](#) Introductory Course in Chinese for Engineers, Part 2: *Compulsory for students admitted to the China specialisation. The course is given in China.*

[GEMA65](#) Chinese for Engineers: *LTH common courses (courses where the course code begins with GEM) counts as external elective courses in the degree requirements for students admitted autumn 2011 and later.*

[EITN50](#) Advanced Computer Security: *Only one of the courses [EITN50](#) and [EIT015](#) may be included in a degree.*

[EDAN65](#) Compilers: *Replaces [EDA180](#) Compiler Construction*

[EDA230](#) Optimising Compilers: *The course is offered every other academic year and will next be offered in 2016/17.*

[GEMA20](#) English for Engineers: *LTH common courses (courses where the course code begins with GEM) counts as external elective courses in the degree requirements for students admitted autumn 2011 and later.*

[GEMA25](#) German for Engineers: *LTH common courses (courses where the course code begins with GEM) counts as external elective courses in the degree requirements for students admitted autumn 2011 and later.*

[GEMA60](#) Law for Engineers, Introductory Course in Business Law: *LTH common courses (courses where the course code begins with GEM) counts as external elective courses in the degree requirements for students admitted autumn 2011 and later.*

[GEMA70](#) Japanese for Engineers: *LTH common courses (courses where the course code begins with GEM) counts as external elective courses in the degree requirements for students admitted autumn 2011 and later.*

[FFF042](#) The Physics of Low-dimensional Structures and Quantum Devices: *Re-examination set by agreement.*

[GEMA01](#) French for Engineers: Language, Culture and Society, First Course: *LTH common courses (courses where the course code begins with GEM) counts as external elective courses in the degree requirements for students admitted autumn 2011 and later.*

[GEMA55](#) Medicine for Engineers: *The course is offered every other academic year and will be given in 2015/16, 2017/18 LTH common courses (courses where the course code begins with GEM) counts as external elective courses in the degree requirements for students admitted autumn 2011 and later.*

[MIE041](#) Measurement Systems for Control: *The course is offered every other academic year and will be given in 2014/15, 2016/17.*

[MMKN30](#) Service Robotics: *The course is offered every other academic year and will next be offered in 2016/17.*

[EITN35](#) Advanced Course in Electrical and Information Technology: *The course starts only after agreement with the department. The course is not linked to any specific study period. The information on hours depends on the course running over a study period. Individual study plans are to be set up and approved.*

Bachelor's Projects - E

The list contains the bachelor's projects that are included in the E programme. The list is not necessarily complete before the academic year 2016/17.

Links

Course Code	Credits	Course Name	Links
EIEL01	15	Bachelor Project in Industrial Electrical Engineering and Automation	KS KE U
FMSL01	15	Bachelor Project in Mathematical Statistics	KS KE U W
FMNL01	15	Bachelor Project in Numerical Analysis	KS KE U

Degree Projects - E

The list contains the degree project courses that are included in the E programme.

Links

Course Code	Credits	Course Name	Links
FRT820	30	Degree Project in Automatic Control for Engineers	KS KE U W
BMEM01	30	Degree Project in Biomedical Engineering	KS KE U W
EDA920	30	Degree Project in Computer Sciences for Engineers	KS KE U W
EITM01	30	Degree Project in Electrical and Information Technology	KS KE U W
EEM820	30	Degree Project in Electrical Measurements	KS KE U W
AEB820	30	Degree Project in Energy and Building Design	KS KE U
VTA820	30	Degree Project in Engineering Acoustics for Engineers	KS KE U
MAM920	30	Degree Project in Ergonomics for Engineers	KS KE U W
EIE920	30	Degree Project in Industrial Electrical Engineering and Automation	KS KE U W
FMS820	30	Degree Project in Mathematical Statistics for Engineers	KS KE U W
FMA820	30	Degree Project in Mathematics for Engineers	KS KE U W
FMN820	30	Degree Project in Numerical Analysis	KS KE U W
PHYM01	30	Degree Project in Physics	KS KE U W
MIO920	30	Degree Project in Production Management	KS KE U W
TNS820	30	Degree Project in Rehabilitation Engineering	KS KE U W